

# The Interagency Ecological Program for the San Francisco Estuary



Interagency  
Ecological Program  
COOPERATIVE ECOLOGICAL  
INVESTIGATIONS SINCE 1970

## Agenda Item # 2a: Quarterly IEP Science Highlights

**Contact:** Steven Culberson, [steve.culberson@deltacouncil.ca.gov](mailto:steve.culberson@deltacouncil.ca.gov), 916-445-0147

**Time Needed:** 20 minutes

**Justification for Action Requested:** The IEP Science Highlights provide examples of how the IEP accomplishes its mission,\* and includes recent scientific results of interest to the IEP Agency Directors, policy makers, managers, other scientists, stakeholders, and the public. In addition to providing a brief summary of relevant information, the IEP Science Highlights stimulate discussion about additional priority management and policy science needs and about how these needs are best met. The one-page IEP Science Highlights, compiled by the IEP Lead Scientist and IEP Management Team quarterly, are available quarterly here: <http://www.water.ca.gov/iep/highlights/index.cfm>

*\* "The mission of the IEP is to provide and integrate relevant and timely ecological information for management of the Bay-Delta ecosystem and the water that flows through it. This is accomplished through collaborative and scientifically sound monitoring, research, modeling, and synthesis efforts for various aspects of the aquatic ecosystem. The IEP addresses high priority management and policy science needs to meet the purposes and fulfill responsibilities under State and Federal regulatory requirements. The IEP relies upon multidisciplinary teams of agency, academic, NGO, and other scientists to accomplish its mission."*

### Accomplishments:

- See next page for the current edition of the quarterly IEP Science Highlights.

**Challenges:** Communication with and timely input from stakeholders and community scientists continues to be a valuable and timely concern of the Lead Scientist. Dr. Culberson's 1<sup>st</sup> Year "Listening Tour" continues as does his on-boarding and education to the roles, responsibilities, and opportunities the IEP has in front of it for 2017 and beyond. Lead Scientist focus is beginning to shift from program functional issues to science vision and planning in anticipation of larger Science Enterprise direction-setting over the next 12-18 months. Lack of funding to support community-based call-for-proposals continues to impair interagency collaboration and collective problem-solving for IEP member agencies and stakeholders.

### Anticipated Next Steps:

- IEP Annual Work Plan – final adjustments and feedback to Principal Investigators – Sept/Oct 2017
- "Listening Tour" continues (22 of 40-42 interviews completed) Directors and Science Strategy next!
- Update to IEP Program documents (Work Plan, Governance Framework) – draft to CT soon
- Update of IEP Science Strategy (including outreach and input solicitation) 2017-18 (see offsite agenda)
- SAG Review process update nearly complete – trying to close the loop on previous reviews and solicit ideas for next reviews – sturgeon sampling? FMWT community analysis?

# The Interagency Ecological Program for the San Francisco Estuary



## IEP Science Highlights Directors' Meeting Update September 2017

### **General**

- RVRS – Final EIR released for the proposed IEP Field Station in Rio Vista

### **Salmon**

- *Sacramento River adult escapement* -- Winter-, spring-, and fall-run reduced by drought conditions over the past years. Lowest recorded Winter-run carcass count since current survey 2003 (113). Tied for 2<sup>nd</sup>-lowest Winter-run redd count in upper Sacramento River (26).
- *SacPAS feature discussion* -- September or December meeting (TBD). See website: [http://www.cbr.washington.edu/sacramento/data/tc\\_rpa.html](http://www.cbr.washington.edu/sacramento/data/tc_rpa.html)

### **Delta Smelt**

- *Delta Smelt 20-mm 2017 index* – surveys completed and established an index of 1.5 (highest since 2013, but still fifth-lowest since 1995 -- See below).

### **Other Native Fishes**

- “Modest improvements” to juvenile striped bass index – survey nearly complete

### **Science Communication Highlights**

- GRTS Program Update (Gerhts, Thompson update)
- Featured publication: “Vulnerability of stream community composition and function to projected thermal warming and hydrologic change in the western United States” by M.I. Pyne and N.L. Poff. 2017. *Global Change Biology*, 23:77-93.
  - Stream flow and temperature change will affect stream insect communities.
  - Ecosystem processes and functions will change as a result.
  - Modelling interactions into the future result in predictions of loss of taxa through time.
  - Mitigations are possible, available, and can be modeled as well.
  - Supporting data collections and additional modeling is suggested.
  - Regions vary in their response to changes in underlying climatological character.

### **Project Work Team updates**

- Flow Alteration Management Analysis and Synthesis Team formed (FLoAT MAST).
- IEP Lead Scientist attended Sturgeon PWT, and Tracy Fish Facility Improvement Program meetings.
- Estuarine Ecology Team (EET) held July meeting.
- Synthesis Teams continue progress (Aquatic Vegetation, Drought Synthesis, Harmful Algal Blooms)

# The Interagency Ecological Program for the San Francisco Estuary

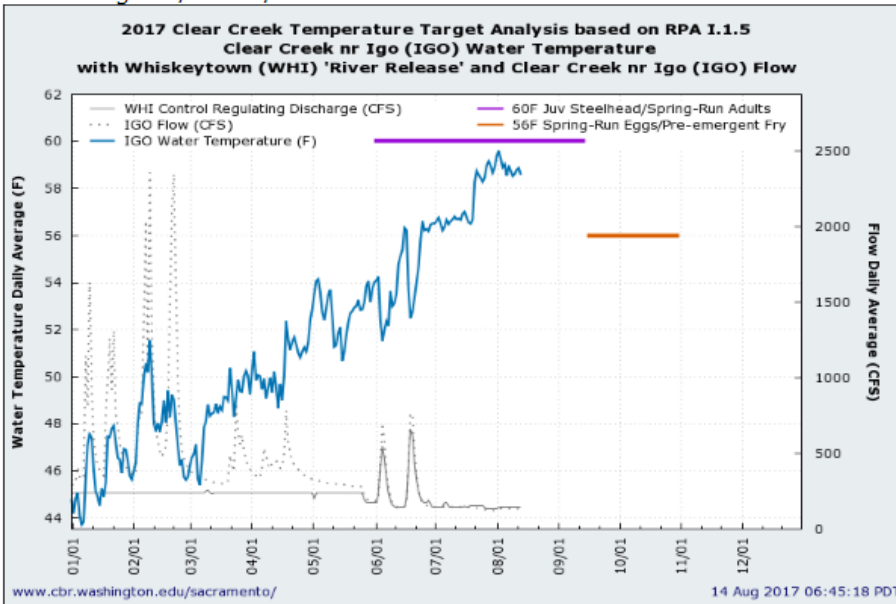


Interagency  
Ecological Program  
COOPERATIVE ECOLOGICAL  
INVESTIGATIONS SINCE 1970

Supplemental Material:

## Clear Creek

[Clear Creek Temperature Target Analysis based on RPA I.1.5](#) for Juvenile Steelhead, Spring-Run Adults, Spring-Run Eggs, Pre-emergent Fry  
Date Range: 6/1 - 10/31



updated: Monday, 14-Aug-2017 06:45:18 PDT

[http://www.cbr.washington.edu/sacramento/data/tc\\_rpa.html](http://www.cbr.washington.edu/sacramento/data/tc_rpa.html)

## 2017 20-mm Delta Smelt Index

Subject: The 2017 20-mm Survey Delta Smelt Index

The 2017 20-mm Survey Delta Smelt index is 1.5. This is an increase from last year and is the highest index since 2013 (Figure 1).

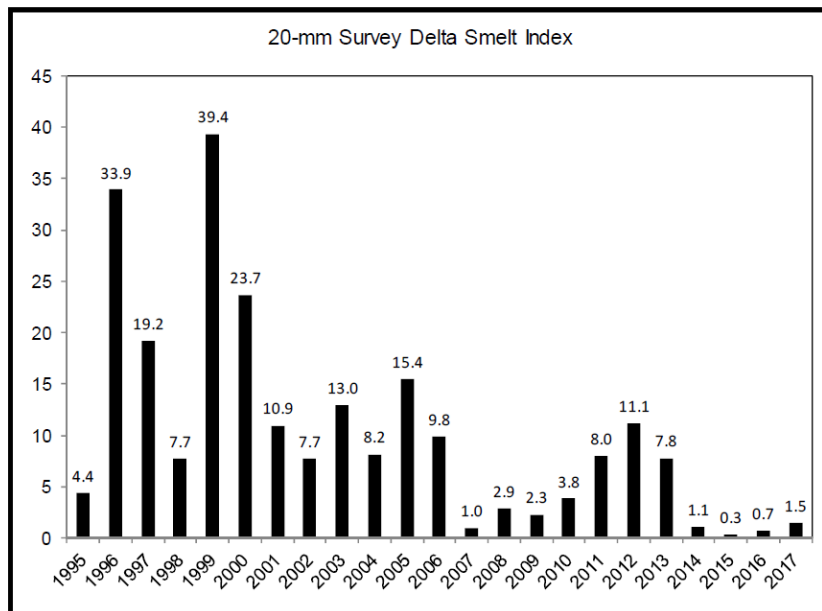


Figure 1. Delta Smelt index of abundance from CDFW's 20-mm Survey, 1995-2017.

IEP Quarterly Directors' Meeting - September 13, 2017